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INTRODUCTORY TO THE

ONE HUNDRED AND FIFTH COURSE OF INSTRUCTION

IN THE

MEDICAL DEPARTMENT

OF THE

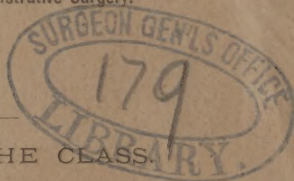
UNIVERSITY OF PENNSYLVANIA,

DELIVERED MONDAY, OCTOBER 10, 1870.

BY

D. HAYES AGNEW, M. D.,

Professor of Clinical and Demonstrative Surgery.



PUBLISHED BY THE CLASS.

PHILADELPHIA:

R. P. KING'S SONS, PRINTERS, No. 337 CHESTNUT STREET.

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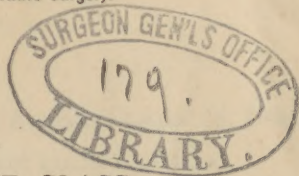
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CORRESPONDENCE.

PHILADELPHIA, *October 12, 1870.*

D. HAYES AGNEW,

*Professor of Clinical and Operative Surgery,
University of Pennsylvania:*

DEAR SIR:—We, the undersigned, at a meeting of the Class held October 11, 1870, were appointed a Committee to wait upon you, and request, on behalf of the Class, a copy of your Introductory Address, delivered before the Faculty and Class of the University of Pennsylvania on Monday, October 10, 1870, for publication. Trusting that it may meet with your approval,

We are, respectfully,

THOMAS C. POTTER,
LOUIS STARR,
LOUIS S. STILLE.

1611 CHESTNUT STREET, *October 19, 1870.*

Messrs. THOS. C. POTTER, LOUIS STARR, and LOUIS S. STILLE:

GENTLEMEN:—Your letter requesting a copy of my Introductory for publication, in conformity with a resolution of the Medical Class, has been received. I cannot believe the Address entitled to such distinction, but will cheerfully place it at your disposal. With the highest regard for the members of your Committee and the Class whom you represent,

I am very truly your obedient servant,

D. HAYES AGNEW.

ADDRESS.

GENTLEMEN:

By appointment of the Faculty it becomes my pleasing duty, in accordance with an established custom, to meet you to-day, and in their name, and on their behalf, welcome you to the halls of this venerable school. Over one hundred years have been numbered with the past since this institution commenced the work of medical education. During this period eight thousand of her sons have gone forth, authorized under her seal, to exercise the beneficent art of healing the sick. Her annals contain a long line of names which not only give lustre to her history, but are known and honored by the universities of every country. Many of these have paid the inexorable demand of nature: their voices can never again charm the occupants of these seats, or communicate the rich stores of practical wisdom which lives of enthusiastic devotion to a noble profession had secured. Yet, though absent in body, they are present in thought and doctrine. There is something mightier than the sword, more enduring than territorial conquest. The dynasties of Charlemagne, Cæsar and Alexander have all passed away, but the writings of John Milton, the practical thoughts of Peter the Great, will continue to operate with accumulating force to the end of time. No prison doors can incarcerate the *thought* of man: it has opened them by a word. Fires cannot consume it; it has come out of the crucible like fine gold. Floods cannot drown, despotic decrees subsidize, nor time annihilate it. A thought may come into the world long before the world is ready for its reception,

and fall without observation, like a seed-corn into some rocky crevice; but the hour of its enlargement will come. Little did Wollaston suppose that in those spectral lines which he first noticed almost eighty years ago, lay the secret of determining the chemical constitution of the sun and the stars; or Apollonius Pergæus, that after twenty centuries should roll round, conic sections, of which he was the discoverer, should become the foundation of Astronomy. While, therefore, we rehearse with pride the great names which belong to this seat of learning, we are not insensible of the fact that every generation has its responsibilities and duties. Institutions are like nations: they must have a future in view; must make a future. If they decline to go forward, and prefer to fall back on the past, their decadence has already begun.

You have come here, gentlemen, from the various sections of our country, to enter upon the study of a profession which is to be a life-work. This is a great purpose. To determine on something which is to challenge every thought, control and regulate every desire, inspire every faculty, command every feeling, and interpenetrate the whole texture of personal and relational life: this is a great and serious purpose. Are you ready for this?

Permit me, on this occasion, to present to you in as brief a manner as possible this matter: *the selection and study of a profession*. The first interrogatory which should meet an individual about to determine on the selection of any calling should be this: *Is it worthy my consecration?* According to Ecclesiasticus, God created the physician and physick. When our race lost its primal perfection, suffering and pain entered the world; and I doubt not, the first physical pang which was realized would instinctively lead its victim to seek an antidote for relief. The remotest records of ancient nations by common consent regarded this art as sacred. Cicero writes, "*Deorum immortalium inventioni consecrata est, ars Medica;*" and in perfect accord with this senti-

ment is the language of Hippocrates and Celsus. The Egyptians and the Greeks entertained the greatest respect and admiration for their physicians. There were those who stamped upon their coins the names of their eminent doctors, side by side with their gods. The Athenians entertained such extraordinary regard for the medical profession, that no slave or woman was allowed to enter its ranks; and in some instances, as in the days of Julius Cæsar, the freedom of a great city was extended to the disciples of medicine. The city of Edinburgh recently furnished a notable example of a similar kind, in the case of one of her distinguished sons, Sir James Simpson, who has recently been stricken down by the angel of death, in the very midst of professional labor. But aside from all this, there is one thought which should forever hallow, dignify and ennoble medicine. The great Founder of Christianity dispensed with a prodigal hand His gift of healing. Eyes which had never seen one object in this beautiful world, were opened; ears which had never heard the sweet tones of human speech, were unstopped; palsied limbs, dead and wasted by long disuse, felt again the electric flow of power, and became agile as the mountain roe; wasting fevers were rebuked; reason again enthroned, and the fierceness of the maniac replaced by the gentleness of the child. In the selection of His followers, one, the most learned and cultivated of them all, was a physician—styled a beloved physician; and in sending this little band forth to conquer the world, one of the leading instructions inscribed on their commission was, “Heal the sick;” and from that day to this, all adown the centuries, physicians have occupied a distinguished and honorable position, for their learning and devotion to all the interests of the race. Who first chained to his victorious car the scourge of small pox? Whose sagacity gave to surgery a power to execute her boldest triumphs without a pang or a pain? Who found hospitals for the sick, and with singular devotion give to these noble institutions their time and skill,

without a thought of pecuniary reward? Who when pestilence shakes her sable wings over the land, and the multitude stricken with fear fly like a routed host; when even the ties of blood are not strong enough to bind man to his fellow; who, at such a time, cheerfully volunteer to stand in the breach, and administer the blessed resources of their profession without one mercenary thought? Who thread your lanes and alleys by night and by day, carrying relief to the thousands of our wretched humanity who swarm in the background of metropolitan life?

There is a corps of educated young men who, in behalf of the Guardians of the Poor and the various dispensaries, make annually over ten thousand visits to the destitute sick, at all hours of the night, in all states of the weather, and in the most miserable abodes of wretchedness and want, receiving for such service the munificent sum of about three and one-third cents for each visit; and it is to the honor of our profession that the poorest man in the land can command, in the consideration of his case, as distinguished skill and learning as the chief magistrate himself. Again, who have gone forth with every army from the siege of Troy until the present time, to conflict with an enemy more potent and deadly than chassepot or sword? In fine, who in every part of the world are the magnates in all departments of scientific pursuit, which give to our civilization its greatness and power? Yes, gentlemen, the profession is noble and unselfish, worthy of your highest consecration.

This settled, we may inquire—Who are to study medicine? Does sex offer any barrier to its prosecution? This opens up a wide field for discussion. I do not propose to enter it, except in a very general way. There is, and always has been, a party in the world which believes it has a special mission to pioneer. It appropriates infallibility in all matters of progress; its governing principles are pure abstractions; nothing is too sacred in morals, religion, or government to escape its violence; it strikes

at the foundations of the best ordered society; it drives the ploughshare of disseveration through every organization, custom, or institution antagonistic to itself, and like an earthquake convulsion upturns in interminable confusion the well-compacted strata of social order which time had proven to be eminently wise and good. All movements contemplating change in established systems should be considered with great moderation and judgment. Even when reform is desirable, all violent measures are to be deprecated, destroying as they do the good along with the evil. The ancient despotism of France, says Bishop Whately, bad as it was, did not cause more misery in a century, than the Reign of Terror did in a single year. Lord Bacon, in speaking of changes in matters of long-established usage, counsels "to stand upon the ancient way, and look about to discover what is the best way." The dogma upon which rests the entire structure of "Women's Rights" is a transparent sophistry. "The male is not the superior of the female." The fallacy of such a statement is to be found in connecting the idea of inferiority with diversity of duties. In a piece of mechanism there may be many wheels, levers and springs. These do not all perform the same office, yet each is essential to the piece. Or as Paul, employing the human body in one of his masterly illustrations, says, "the eye cannot say unto the hand I have no need of you, nor again the head to the feet I have no need of you; nay, much more, these members of the body which seem to be more feeble are necessary." In this view no comparisons can be drawn between the sexes to the prejudice of women; nor can inferiority be predicated on diversity of function. That the sexes were never designed to follow the same line of occupation is apparent, even during the earliest years of life. Their dispositions, subjects of thought, and amusements, are altogether different; but, being designed to mate, these diversities accord with the most perfect harmony. The world over, among civilized nations, it

has been observed, the very qualities which the female admires in the male are the contrasts of her own, such as are preëminently masculine. And so the converse is true; the qualities and graces which men esteem and admire in the female are such as are eminently feminine. The boy in his boyhood romps with boisterous lawlessness, fires his marbles, or wrestles with his playfellow; now perched on a roof-top flying a kite, or riding his grandfather's cane for a horse. If the boy receives insult he resents it with blows, the girl with indignation and tears. If they encounter a snake or even a worm, the boy sets upon them to destroy, the girl flies with a scream. The girl is altogether more quiet and retiring: loves to sit at her mother's feet, to dress and nurse her doll, and when rudely treated, or encounters some accident, runs to her brother for protection and defence. This beautifully shadows forth, not the equality of the modern school, but the existence of a law embedded in the constitution, by which man is authorized to protect and govern, and woman is disposed to confide and obey.

The empire in which she should reign is the family; and there she should reign, as Rosseau has said, like a minister in the State—"by making that which is her inclination, to be enjoined to her as her duty. Thus it is evident the best domestic economy is that where the wife has most authority; but, when she is insensible to the voice of her chief, when she tries to usurp his prerogative, and to command alone, what can result from such disorder but misery and dishonor?" In fact, however much the liberal school may sneer at the statement of a certain old bachelor who said, "I suffer not a woman to teach; to usurp authority over the man, but to be in silence;" and then adds as a reason, "the man was first formed, then the woman; and the man was not deceived, but the woman being deceived was in the transgression"—I say, however much they may sneer, the proper observance of this very relation confers on woman her greatest

power and dignity. This obedience was the very secret which gave the Empress Livia—as it has given thousands since—such influence over her husband Augustus; and so of a former queen of Spain, who obtained great influence over the king by her extraordinary prudence, and loving submission to his commands, the more easily obeyed, says her biographer, as they were commonly, though to him imperceptibly, dictated by herself. She cured him of many foibles, and in a word was his Minerva, under the appearance of Mentor.

If we turn to her physical organization, it requires no Daniel to decipher the “handwriting on the wall.” There are portions of this State where females engage in the usual occupation of farm-hands. I have often witnessed them, and observed the execution of her task was one of difficulty, devoid of both masculine grace and efficiency. Nor can any amount of practice overcome this, simply because it is in hopeless conflict with the arrangement of the skeleton, and the development and the disposition of the muscular system.

One-fourth of the active period of a woman’s life, she is under the perturbing influence of a function, during which neither publicity nor exposure are desirable, and in which neither the mind nor body are in a condition to meet the demands of a profession. Every physician at all conversant with the peculiarities of the female sexual system knows very well menstruation and logic are not interchangeable terms.

If we turn to the mental organization of females, we find no necessity to depart from the ordinary classification of the faculties. They are the same in both sexes, and yet are so influenced by organization in the female as to operate in mode and degree altogether different from the male. Without individualizing these differences, we may say, in females the emotional element prevails; that while she is brilliant and fluent, she is nevertheless incapable of sustaining those long and laborious processes of

thought, experimentation and generalization which are the glory and power of the man. Can you point me to any great law like that of gravitation; any great invention like the power-loom, the steam-engine, the sewing-machine, or the reaper; any theological system; any great allegory like that of Bunyan; any system of law like the Pandects of Justinian; any philosophy like that of Brown or Hamilton; any grand epic like *Paradise Lost*: which ever came from the mind of woman? Not one. And yet, if she cannot invent an engine she can construct the most ingenious and entertaining works of fiction; she can excel in music; can train the young with matchless skill; can carry forward the important duties which attach to asylums and homes with a delicacy and forethought peculiarly her own; she can do the work of an evangelist, in reading to the poor and neglected; she can traverse seas and become a co-worker with man in winning the nations from the curse of Paganism; she can bear children, nurse them from the fountain of her own breasts, and train them in the best of all schools to fear God, and honor authority, whether in the household or the State; and I tell you, if you place the results of such a work, faithfully performed, to her credit, over against the items of man's inventory, she is not his debtor.

The numerical relation which the sexes bear to each other clearly indicates the pairing of the human family to be in accordance with the design of the Creator, and, of course, inseparable from such a relation are the duties and responsibilities of maternity, which rise paramount to every other consideration. If the woman be faithful in these, she can assume no professional engagements. She cannot rightfully leave a sick child or nursing baby at home, or a house to the irregularities of irresponsible servants, while she waits at the bedside of a protracted labor. I know it will be answered, "but large numbers of women are not married." Still this does not meet the fundamental objection of

sexual disqualification for masculine employments. The question may be asked with great propriety, Why are they not married? The statistician is often perplexed at the result of his figures. He finds portions of our country in which there has been a steady decrease in the marriages, and where the native deaths actually exceed the births. May not such a startling fact be clearly traceable to the practical operation of this doctrine of women's rights? The women are strolling about the country, attending conventions, delivering lectures, and clamoring for admission to clerkships and professions, when they ought to be at home bearing children, and guiding the house. As regards medicine, its study by females is not a novel event. It has been on trial centuries ago. We have mention of Aspasia and Cleopatra, women who practised at Rome about three hundred years after Christ.* We learn that among the Saracens during the thirteenth century many women were engaged in obstetrics, as they have been from the days of the Pharaohs to the present time. This was true of freeborn women at one period both in Rome and Greece. The Arabians encouraged the same on account of Saracenic sensuality, and by Mohammedan laws the attendance of males on females was for a period utterly prohibited. Indeed at one time she had the field almost exclusively to herself, and yet, after sixteen hundred years of trial, has failed to vindicate her claims to success; and now, in this nineteenth century, she turns up again in bloomer and swallow-tail, to make another attempt to reverse the inevitable decree of organization.

Will she succeed? Will she command the confidence of her own sex? Will not women in all times of serious illness turn instinctively to man, as the needle turns to the pole?

It is within the range of possibility, under modern views, to develop a race of women, who may yet inaugurate a Platonic republic, where men and women may wrestle in the same gym-

* American Encyclopedia.

nasium, *nuda cum nudis*; or, like the Greeks, plunge into the same bath; or maidens, like those of Rome, who could witness unmoved the fierce encounters of the Colliseum, and after the slaughter was ended, sit down, in the arena wet with human gore, to enjoy a sumptuous repast. It will be an unfortunate day for woman when her mistaken friends force her into the attitude of a competitor with man. The moment she accepts such a place she loses the protectorate of those instincts of the male which grow out of the subjection imposed by divine legislation on the female, and which have been wisely arranged to prevent the tyranny and oppression which might otherwise spring from the stronger. If, however, she is to implead juries, endure the Billingsgate of ward meetings and nominating conventions, mount the political platform, amputate limbs, make a perineal section, or cut for stone; let her remember there are laws controlling the social structure of society, the operation of which will disrobe her of all those qualities now the glory of the sex, and will cast her down in the dust of the earth. While such then are my personal views on this subject, I am opposed to waging a professional warfare either against the sex or their apologists. Let them alone. If it is, as I believe, one of those wild eccentricities which ever and anon come to the surface, in the ongoing of the world, affecting the body social, as boils do the body human, there is no use in trying to resolve it; better let it suppurate and come to a head as quickly as possible. If, on the other hand, it rests on the basis of some advanced truth, it will live, and should live, superior to all opposition.

If, then, the profession belongs peculiarly to man, there follows another most pertinent question, which every one aspiring to its duties should ask himself—*Is it the profession for me?* We have no difficulty in admitting that nations have their missions. No one can doubt the Hebrew was designed to teach the world monotheism and purity; the Roman, legislation and law; and the

Greek, the splendor of logic and art: and so, I take it, every individual is designed to fill some place, to do some work. In looking over the vast field of human industry, we cannot fail being impressed with the diverse and multitudinous avocations of the race. Here is the smith at his forge; the joiner driving his saw and his plane; the merchant at his desk. Here are crowds thronging the marts of commerce and trade; and artisans of every name engaged in their varied handicraft. One man follows the tail of his plough, content to break up the fallow ground, and garner the precious fruits of the earth; while others go down to the sea in ships, to visit foreign lands, and mingle with strange nations. Here is one who finds his chief joy in giving visible forms to thought on the canvas, or marble; and another who enters his laboratory to kindle the fires of analysis, and interrogate the conditions of matter. Here is one who points his glass to the heavens to explore that stupendous province of the Creator, where human reason is awed into silent contemplation before magnitude and boundless space; while others long for the stirring contests of the forum and the senate. These, with many others, are the pursuits which continually invite men in the struggle of life. The great matter is to fall into the right ranks; to ascertain exactly your place, and mission, and then, to play well your part. All along the highway of life we see laggards; those who go on their way halting on the thigh; outstripped in the race. These finally sink out of sight. The great mistake was, they were deficient in the equipments for the race. The most superficial observer will not fail to discover the incongruity which so often exists between persons and places. How many thousand barks have slipped their cables and gone out to sea only to drift about at the mercy of the winds and the waves! What a shame that these immortal powers, capable of unlimited sweep and cultivation, should be so perverted, or misdirected, as to be all the while driving against the current; failing to accom-

plish any thing noble or good, when there are fields in which distinguished attainment is possible. It is not expected that every toiler—even where no error on this point has been committed—will reach the highest altitudes of professional distinction: this is reserved only for a few; but it is to meet exactly the demands which fall within your own province, according to the measure of your highest possible capacity—that is the expectation. It is the best, the very best use of what a man has, which constitutes the true measure of excellence. There are humble men in this world, without station, power or influence, who by kind words and thoughtful service do more to lighten the burdens of life, and infuse courage and hope, than thousands of more pretentious names. It is this disposition which, paradoxical as it may seem, makes penury, as by talismanic touch, affluence, and weakness confound the wisdom of the wise. With such an understanding of the subject in its application to medicine, have you sat down and calmly and deliberately considered the subject? Have you asked such pertinent questions as these? Do I possess such a mental cultivation as will enable me to grapple with the problems which cluster about this divine piece of mechanism, the human body; investigate by long and tedious processes the phenomena of disease, with a mind so well trained in logical acumen as to detect and eliminate the apparent from the real? Have I the ability to untangle the contradictions which constantly mask disease, and produce so often hesitation and indecision? Have I that solid, fixed mode of thought which can withstand the fascinations of theory and speculation, and anchors only in the solid ground of facts? Have I that well-adjusted moral frame which knows how to sympathize with our broken humanity, without the exhibition of weakness on the one hand, or hollow sentimentalism on the other; to deport myself in such manner, when brought in contact with the multiform and contradictory moods of the sick and suffering, as they shall, by that

wondrous magnetic power which inheres in the human soul, become drawn to my person with a power which imperial faith can alone inspire? Have I that opulence of resource; that readiness to take advantage of opportune circumstances; to confront emergencies, and that resolute will, supported by moral principle, which defies temptation, does not surrender to flattery, and executes its convictions with manly decision and firmness? Can I bear ingratitude, misrepresentation and abuse from inferiors and equals, and yet toil on with unselfish devotion, blind to every thing but duty? In fine, can you bear all things, endure all things, hope all things? If so, God speed your mission: you are called to this work.

Let us next inquire how you can best master the branches included in the curriculum of study. Let me say here, there is no royal road to this end; no short cuts. Three years is the period at present allotted to making a doctor. Think of that; three years, and then to go forth to determine the nicest questions affecting human life; to meet disease in all its Protean forms; to be a master in medical analysis and diagnosis, appreciating all the possibilities involved in the conduct of a serious case, and to go forward, to wield the enginery of the art without hesitation or doubt. Here is a young girl of refinement and cultivation, an only child, brought up amid all the elegancies of polite life, idolized by her parents and loved by a circle of devoted companions; or a widowed mother, in some humble, retired court, striving, by industry and self-denial, to keep together a group of helpless children; or, perhaps, a man in public life, whose sagacity, influence and energy animate the industry of an entire community or shape the policy of cabinets. Suppose any one of these—each one of whom may stand for a class—be suddenly smitten with some formidable disease. The interest of many households, of an entire city, or even a nation, is concentrated on yourself; every look scanned, every word

weighed. There must be no trace of indecision, perplexity or delay. It is as when Darius was only a few days' march of Alexander, then seriously ill. Turning to his noble old physician, Philip, he said: "My case demands neither tardy remedies nor timorous doctors." Now, for this, only three years preparation! You say it is impossible. I fully agree with you, and hope the day is not remote when it will be four or five years. How long, think ye, does it require a boy, at the mouth of one of our great bays, to complete his pupilage as a pilot? Why, seven years before he is trusted with the commonest vessel, and eleven before he is formally allowed to undertake a first-class bottom. Think of that: seven years before a man is deemed competent to conduct a vessel from the Breakwater to the city of Philadelphia; and yet, three years are deemed sufficient to tide safely to port the most precious thing which belongs to our humanity!

You will commence, then, alive to the fact that a work of magnitude is to be done in a brief period. Let your time, therefore, be properly apportioned, both for study and recreation, every hour properly provided for; and when such method solidifies into habit, it is amazing what can be accomplished. Sir Richard Blackmore wrote his *Prince Arthur*, in many volumes, a book receiving the marked approval of Locke, during the little parenthesis, or breathing spells, of an extensive practice. Brougham his voluminous works when in full practice at the bar and on the Woolsack. The museum of John Hunter was the accumulations of little periods of time, snatched stealthily as it were from daily professional toil. "I must go and earn that guinea," said this indefatigable worker, in the midst of a dissection, "for I shall be sure to want it." Lord Bacon carried forward his studies in the midst of official labor, and, indeed, it may be said his entire works of massive and recondite thought were the product of leisure hours. The author of the *Old Red Sandstone* laid the foundation of his

distinguished name during such moments of relaxation as he might take, while engaged in the work of a quarryman. Sir Walter Scott's literary labors were executed during the morning hours, when other persons were asleep. Grove, a name associated with the correlation of the physical forces, is a barrister, in active, laborious practice, yet pursues his philosophical studies during the fragments of time which he steals from his clients; and Dr. Barnes wrote his Commentaries, a work involving much laborious research, in the hours before nine o'clock in the morning, never allowing this side work to interfere with the duties of his parish. Indeed, our literature teems with examples of a similar kind, a few only of which have been selected to illustrate what may be accomplished by carefully appropriating brief periods of time.

In the acquisition of knowledge be as thorough as possible. Bring to bear on every subject of study the full exercise of your own powers, not simply viewing through the media of others. A teacher best fulfills his work when, like the celebrated Doctor Arnold, he strives to inspire in his pupil the art of training and using the faculties he possesses. By way of illustration, apply this to the study of anatomy. Before ever reading critically an authority on this subject, what would you say were the uses of the skeleton, considered merely from the standpoint of mechanical law? Why the curves in its pieces; the peculiar disposition of its articulating planes; interior structure, together with the nature of its composition. After such a consideration, turn over the pages of the text-book and ascertain the result of your reflection. It was in this way Gibbon commenced the study of any subject, always noting down what was known to himself, and afterwards turning to the authorities. The simple accumulation of facts, however, is no more education than the reception of food into the stomach is digestion. Selection, differentiation and assimilation are as essential in the one case

as the other. The simple acquisition of knowledge, or mental culture, carried to the highest degree, does not make a man useful, neither qualifies him to discharge the legitimate demands of the world. There must be something more; something to flow out of all this; a product of mental distillation. It is *wisdom*. Hence, one of the wisest of men said: "With all your getting, get wisdom." Solomon understood the meaning of true education. What think ye of the miser who spends his whole life in amassing wealth, laboring night and day to fill his coffers with gold, locking it up in iron safes, and finding his chief gratification in counting these hoarded gains, but never disbursing one dollar toward any public or private object? Knowledge, to be valuable, must be used, made practical, circulated. The reflex influence of applying your acquisitions and skill for the benefit of others, of adding to the sum of human happiness, outweighs a thousand times the pleasure of the student who seals up the fountain of his learning, or contents himself with only a mental rumination.

The medical student, entering on his collegiate course, should carefully follow the instruction of each Chair; yet it will promote progress to give prominence to at least three branches each term. In grouping these dominating studies, two, at least, of the three, should be closely allied, so that the mental lines of thought may be analogous, and in this way assist the memory in their retention. Thus we may place in one group Anatomy, Physiology, Chemistry and Practice. The first two deal in terms very similar, and therefore mutually aid each other. The second group may consist of Practice, Surgery, Materia Medica and Obstetrics.

Anatomy will first claim your attention. This forms the ground-work of all that follows. It describes the various parts of the human body. What a charming task, to sit quietly down in the apartment for dissections and take apart this master-piece

of workmanship; to call each piece by its proper name; know its proper place and work; to wonder over the multitude of organs, so compactly pressed together, so diverse in operations, yet each executing its appointed task in the grand confederation without a jar or tremor. Yes, gentlemen, do not neglect dissection. The lifeless frame is the greatest of all books. Turn over its leaves with untiring diligence. You can never know its contents too well. It is said Johnson could never think of Goldsmith's description of the men of England without having the tears suffuse his eyes, and I think no anatomist can recur unmoved to that memorable incident in the life of Vesalius, when, alone, at midnight, with furtive glances at the suspended crucifix, he is about to unveil by dissection the mysteries of the dead body.

I should greatly regret to witness a period when the interest of a medical class in dissections begins to wane; and yet, I fear, such is the case. Illustrated works on anatomy, colossal models and diagrams, exceedingly useful in the lecture-room, have had no small tendency in producing this result. The work is repugnant to many, and yet it is indispensable. A surgeon, I care not how familiar and accurate his anatomical knowledge, should frequently consult this great text-book. The most eminent abroad were always in the habit, before an important operation, of reviewing details on the cadaver; and were this practice more general at the present time, there would be less liberty taken with parts other than those diseased.

We go into one of our extensive manufactories, and pass from room to room. Not a wheel revolves, or lever moves; the engineer is absent, and the entire mechanism stands still. Just so the anatomist passes through the various apartments of the lifeless body; and as he scrutinizes each piece of the matchless combination, feels there is but one thing wanting—the communication of that power which will set this rare machine in

motion; and so he turns to physiology, which is living anatomy, the study of the phenomena of living beings. You see how closely allied, and how naturally these two branches stand side by side. Chemistry will claim a portion of your time: a field almost boundless in extent, and which might well demand the undivided energies of an entire life. At this moment it is perhaps true that medicine has reached a stage, through the labors of earnest workers, where further progress is improbable except through the agency of organic chemistry. Of course it is not expected you will compass such a realm, but its general facts and their ordinary application to medicine must be known, or you will be like one who walks with his eyes closed amid the grandest operations in the natural world. Therapeutics often proceeds only in the light of chemistry. The knowledge thrown upon the electrical conditions of muscles and nerves by DuBois and Raymond, and their relational mutations in disease by Duchene, are familiar illustrations of chemical agencies directing both diagnosis and remedies. Surgery will demand your attention. In one sense, every physician must likewise be a surgeon—that is, the great majority of every class which leaves these halls will occupy localities where the lines of special medicine are not sharply drawn, and where each man must be prepared to labor, in a measure at least, in every department of his profession. It will always be true that surgery will gravitate to great cities. The multiplication of manufactories, the concentration of railroads, and the existence of hospitals, must make such a result inevitable. Still, surgical disease will be encountered everywhere, and cases of emergency will arise where you cannot set aside its claims, and must employ its resources, however distasteful or repugnant to the feelings. The great principles of the science should be mastered, and a knowledge in the applications of surgical dressings possessed. In country localities you will be required to take charge of fractures. This you

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cannot decline. In the management of such accidents the community will prove very exacting. You will be expected to come up to Voltaire's definition of a physician, "An unfortunate gentleman who is expected to perform a miracle every day." Of course you are not expected to be experts: that were impossible; and hence the legal responsibilities of rural and metropolitan surgeons should not be gauged by the same measure. I suppose the great mass of this class will be occupied principally in their future work with the practice of medicine, and obstetrics; and there can be no doubt the claims of these branches are of the highest urgency. They will prove the staple of every country practice: to be sure, not so captivating in the public eye as surgery, yet demanding an equal degree of skill. The mechanical appliances introduced into medicine, within the last few years, have greatly extended the horizon of positive knowledge, by subjecting to the scrutiny of the eye conditions of structure which could in no other way have been determined with certainty. These must demand some portion of your time. In rural districts, the duties of the pharmacist devolve upon the physician, as well as visiting the sick. The *materia medica* is his armory. From it he must draw the weapons wherewith to combat disease. He should therefore possess, not only a knowledge of the nature and action of medicinal substances, but also the mode of preparation, as well as the most eligible forms of administration. Let me ask for this branch a most careful and thoughtful study, devoting at least a part of your second term to the duties of practical pharmacy, quite as important to the understanding of the *materia medica* as dissections are to anatomy.

I have no doubt the enumeration of these subjects which are to engross your attention has a tendency to give the matter almost colossal proportions. Still, there is something wanting. The thoughtful student will ask himself, "How, and where, may

I verify the statements of the lecture-room? In what gymnasium may I bring into practical activity and discipline these instructed faculties? where can I train? The anatomist tells me, and my text-book tells me, the biceps muscle has two heads; that an important blood-vessel and nerve lie along its inner border. I want to see it for myself, as well as every other statement which he makes." Then go to the dissecting-room and verify it for yourself. That is the whole secret of learning anatomy. "The surgeon tells me if an incision be made in the middle of Scarpa's triangle, and a certain number of superimposed layers of tissue be divided, the femoral artery will be exposed, and may be ligated. I should like to test the feasibility of this." There is the operating-room; try it for yourself, as well as every other operation. That is the only way to make a surgeon. "From the chair of practice is detailed a train of symptoms which, it is alleged, belong to typhoid fever. If I could only see such a case, and have the testimony of my own eyes, it would add greatly to my self-assurance." Very well: there are our hospitals, rich in all manner of disease; give them your constant attention. There is a great law of compensation ever active in this world, by which good is made to come out of evil. Poverty and orphanage are to be deplored, but by this law almshouses and asylums become nurseries of the benevolent and philanthropic sentiments of the heart. They give play to human charities, and counteract the curse of selfishness. And so sickness is an evil to be deplored; but these hospitals for the reception of the indigent sick furnish opportunities for observation, by which the highest skill may be attained in the cure of disease. These are, after all, the great schools of medicine; and the man who would shut the doors of a hospital against clinical instruction sins against humanity—is an enemy to his race.

With a view of bringing the student into more direct contact with practical medicine, and so qualifying him for a safer and

more efficient use of the powerful resources at his command, the Faculty of this Institution have introduced a very important feature in her instruction, that of special, daily clinics. These embrace Medicine; Physical Diagnosis; General Surgery; Diseases of the Eye and Ear; the Microscope and Chemistry in their applications to Urinary Medicine; Diseases of the Mouth; Diseases of Women and Children; and Syphilis with Dermatology. The morning instructions of each day will terminate with a clinic on one of these branches, so that the student may witness living illustrations of those subjects which have been discussed in the previous lectures. These will be carried on throughout the entire year. They are not designed to be mere numerals of doubtful quantities, or mutes to play a part.

The gentlemen who have been appointed to this great work require no commendation at my hands. This clinical department will receive our warmest support and coöperation, and the large resources at command will be utilized for the benefit of the class.

I have thus rapidly sketched an outline of the picture which you, gentlemen, are expected to fill up. Extended as it is, there is no ground for discouragement. Only look the matter resolutely in the face: begin: go forward: and like Arago, the celebrated French astronomer, "faith will overtake you." Every man possesses capacities of the value of which he can form no just conception. They may lie buried like the Trilinguistic Stone, or the Elgin marbles in the vaults of the British museum, until some accident shall evoke them into life. These immortal endowments which are never to perish were not designed to be bound up in napkins. Go to the ant, thou sluggard, and ponder over her growing mounds: behold the towering chalk-cliffs of Albion, or the submarine galleries of coral on our Florida coast; these monuments of insect industry forever stand to rebuke the idleness of man. It is no extenuation to plead the absence of

genius. Genius is one-sided, and often proves the rock upon which the man of brilliant gifts splits. The plodders, the plodders, the men who are compelled to work in order to acquire—these are the men you will find in the high places of knowledge. They have grown slow, but sturdy like the oak. Adam Clarke was pronounced a very dull boy, but he became one of the greatest scholars in Europe. Sheridan, Linnaeus, Burns, were all stigmatized as dunces, yet they filled the world with wit, science and poetry. How lenient should be our judgment, and how patiently should the teacher apply in turn, the various tests to his pupil's mind, until that which predominates shall be disclosed! The merest trifle may wake into activity the mightiest energies. Like seeds taken from Egyptian sarcophagi: only bring them under the influence of heat and moisture, and the principle of germination which has been sealed up for three thousand years will assert its obedience to law, bringing forth fruit after its kind.

A young man is quietly following the trade of a bookbinder; he is repairing an old encyclopedia, and his eye falls on an article from the pen of Sir Humphrey Davy, on Electricity. His soul catches the inspiration, and the bookbinder is transformed into the philosopher, Farrady. A lad is strolling along the sea-shore, and finds a cuttle-fish left on the beach by the receding tide: its contemplation kindles an ambition which placed the immortal Cuvier in the fore rank of Scientists. A Scotch quarryman while pursuing his laborious occupation is attracted by the impressions of animals in the rocks which he had drilled and blasted; and such developed the geologist in Hugh Miller. These insignificant events, fortuitous as we are wont to term them, formed the incitements; completed the circuit, as the electrician would say; were the heat and moisture which gave play to the vital activities of the seed.

You will not have advanced far in your studies, gentlemen,

until certain parts of the domain of medicine will prove more attractive than others. You will have a bias: a predilection for some one branch over all others. Such a branch, whatever it may be, accords with some inherent or natural taste. It is not only so in our profession, but in every other. This was the secret of Rembrandt's great excellence in painting Rabbais, of Raphael in portraying his Popes, and of Murillo's wonderful cherubs. In medicine, it is the foundation of Specialties, which in this country, following the lead of German and French precedents, is rapidly assuming a deserved importance. It is only by such a distribution, and concentration of labor and talent, the various veins of medicine can be satisfactorily explored, and their treasures developed.

I have thus, gentlemen, most imperfectly, thrown out some thoughts to encourage you in the prosecution of your noble work. In concluding these remarks, allow me to drop a word of counsel before we separate. A great city, with all its elegance and refinement, crowded with institutions of learning, philanthropy and religion, is no less a centre of every type of vice. The toils of the tempter are admirably spread to entrap the unsuspecting. Every thing which is fascinating and sensuous in art is laid under tribute to compass your dishonor and shame. A young man unloosed from the restraints of home, and thrown at once into the vortex of metropolitan life with its every appliance to fire his ardent nature, stands in the most imminent peril. Let me beg of you, under such circumstances, to allow reason, not passion, guide your every step. Never forget parental solicitude, but determine to secure the greatest of all victories, the victory over self, a triumph "greater than taking a city." I shall never forget the little incident of trunk-packing when a lad I was sent away to begin my college life. The trembling hands and averted eye with the words, which need not be repeated here, have never

been erased from my memory. In all the vicissitudes of life they have been by my side, the "pillar of fire and cloud."

Genius and learning, in order to exercise their full power, must be conjoined with *character*. The man who can stand forth with uplifted brow, in the conscious sense of a pure body and unsullied mind, as Sidney Smith once said of old Francis Horner, "with the ten commandments stamped upon his countenance," whether he be clothed in rags or fine linen, is a great power in the world; has something of more value than riches, and more honorable than the insignia of rank or official station; and when he comes to rest in his lot, to hang up the armor of life's conflict on the wall, will realize a state of mind, and feeling, which will guild the evening of life with a splendor such as yon glorious sun of day spreads over the western sky as he sinks to his rest. There is much that is grand and beautiful in this world. The stars of heaven as they roll on in their appointed bounds; a growing State rising in population and opulence, and wheeling into confederate rank; a people long under the heel of a relentless despotism, rising in their might, bursting the cerements of political death, and asserting their claims to nationality. And then our noble rivers, flowing on with majestic power toward the sea; the vast mountains which in massive ranges stretch across our continent; the deep valleys clothed with pastures, and dotted over with hamlets and flocks: these, with a thousand others in sea, air, earth and sky, are beautiful indeed, but not one, or all combined, are half so grand and beautiful as a young man in the strength and vigor of his manhood; his head stored with solid learning, possessing a sound body, pure mind, and sober judgment: to such an one, inspired with honorable ambition, and penetrated by the grace of godliness, nothing is impossible; success is certain in whatever line he works; the arrows of detraction find no vulnerable joints but fall harmless at his feet, for he is mailed in something better than steel. The work of the world

is to be done by young men. The education, legislation, and all the great interests of humanity are to be entrusted to our young men, and whatever they shall be, these will be impressed with their image and superscription. If our young men are trained in the school of virtue as well as letters, then we may anticipate a glorious future; but if intellectual shall ever be divorced from moral culture, then we may read our fate in the ruin and disaster which have overtaken the civilization of a people who were once masters of the world.

Wisdom and character express the whole of true education. These, gentlemen, are what we want. These give perpetuity to reputation and force to opinion. They are the salt of the earth, and challenge the homage of all. To what shall I liken a man with this simple equipment? To the god of day ushering in the dawn, and shining more and more unto meridian splendor? or, like an Alpine peak, lifting its sunlit spire, calm and serene, into empyrean space, far above cloud and storm? We walk among the columns of the stone-cutter: many of these present specimens of the most elaborate workmanship, replete with ornamental device. At last the eye falls upon one, a simple shaft of granite resting on its square and massive base. It is not distinguished by any single dominating excellence; its sides are all smooth unbroken planes: its lines all straight lines: its angles all right angles: it is but cold insensate stone: yet man has struck into it his thought; has transfused it with Promethean fire: it is grand in its exact simplicity. You feel that here are combined the primal elements of æsthetic harmony, all aglow with the symbols of strength, dignity, and power; and you gaze upon it, as one looks out on the resistless swell of the ocean, with never-tiring admiration. Such are faint emblems of the man of wisdom and character.



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Fees for the Course of Lectures,	-	-	-	-	-	-	-	\$140
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